

**In the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-54 (canceled)

55. (New) A method for ex-vivo treatment of platelets, comprising treating platelets with carbon monoxide.

56. (New) The method of claim 55, wherein said treating comprises placing the platelets in an atmosphere containing at least about 40% carbon monoxide.

57. (New) The method of claim 56, wherein said atmosphere comprises carbon monoxide at a concentration in the range of about 40% to about 100%.

58. (New) The method of claim 55, further comprising the step of storing said treated platelets at a suitable temperature, wherein viability of the stored, treated platelets is retained.

59. (New) The method of claim 55, further comprising, after said treating step, the step of promoting atmospheric exchange of air for carbon monoxide in said treated platelets.

60. (New) The method of claim 59, wherein said promoting step is performed by exposing said treated platelets to air for a sufficient time to allow gas exchange to occur.

61. (New) The method of claim 59, wherein said air comprises oxygen.

62. (New) The method of claim 55, wherein said treating step optionally further comprises adding a pH buffering substance to said platelets.

63. (New) The method of claim 62, wherein said pH buffering substance comprises bicarbonate.

64. (New) The method of claim 55, wherein said platelets includes at least one of PRP and PC fractions.

65. (New) A method for inhibiting pathogen growth in a platelet-containing fraction, comprising treating the platelet-containing fraction with carbon monoxide for a sufficient amount of time to inhibit pathogen growth.

66. (New) The method of claim 65, wherein said platelet-containing fraction includes at least one of PRP and PC fractions.

67. (New) The method of claim 65, wherein said treating comprises placing the platelet-containing fraction in an atmosphere containing at least about 40% carbon monoxide.

68. (New) The method of claim 67, wherein said atmosphere comprises carbon monoxide at a concentration in the range of about 40% to about 100%.

69. (New) The method of claim 65, further comprising the step of storing said treated platelet-containing fraction at a suitable temperature to preserve viability of the platelets.

70. (New) The method of claim 65, further comprising, after said treating step, the step of promoting atmospheric exchange of air for carbon monoxide in said treated platelet-containing fraction.

71. (New) The method of claim 70, wherein said promoting step is performed by

exposing said treated platelet-containing fraction to air for a sufficient time to allow gas exchange to occur.

72. (New) The method of claim 70, wherein said air comprises oxygen.

73. (New) The method of claim 65, wherein said treating step optionally further comprises adding a pH buffering substance to said platelet-containing fraction.

74. (New) The method of claim 73, wherein said pH buffering substance comprises bicarbonate.